Appl. No. : 10/719,532
Filed : November 21, 2003

IN THE CLAIMS

1. (Original) A pharmaceutical formulation for preventing or treating allergies or asthma in a mammal comprising at least one helminth-based agent, wherein said helminth-based agent is capable of ameliorating the allergic reaction to a plurality of antigens.

2. (Currently amended) The formulation of Claim 1, further comprising at least one pharmaceutically acceptable compound selected from the group consisting of one or more of the following: adjuvants, carriers and diluents.

3. (Currently amended) The formulation of Claim 1, wherein said helminth-based agent ~~is~~ comprises an immunogenic amount of a helminthic antigen.

4. (Currently amended) The formulation of Claim 3, wherein said helminthic antigen is an isolated protein selected from the group consisting of one or more of the following: nematodes, trematodes and cestodes.

5. (Currently amended) The formulation of Claim 3, wherein said helminthic antigen ~~is~~ comprises a protein isolated from a helminth, wherein said helminth is parasitic to humans.

6. (Currently amended) The method of Claim 3, wherein said helminthic antigen ~~is~~ comprises an isolated protein selected from the group consisting of one or more of the following: Capillaria hepatica and Dicrocoelium dendtriticum.

7. (Currently amended) The formulation of Claim 1, wherein said helminth-based agent ~~is~~ comprises an effective amount of a nucleic acid molecule encoding at least one epitope of a helminthic organism.

8. (Original) The formulation of Claim 1, wherein said helminth-based agent comprises a protein isolated from a helminth, wherein said protein is a recombinant cell transformed with a nucleic acid molecule encoding said protein.

9. (Currently amended) The formulation of Claim 1, wherein said helminth-based agent ~~is~~ comprises an antibody directed to at least one epitope of a helminthic antigen.

10. (Currently amended) The formulation of Claim 9, wherein said antibody ~~is~~ comprises a monoclonal antibody.

11. (Currently amended) The formulation of Claim 1, wherein said pharmaceutical formulation ~~is~~ comprises in a form selected from the group consisting of one or more of the

following: injectable fluids, suppositories, powder, tablets, capsules, syrups, suspensions, liquids and elixirs.

12. (Original) A vaccine for preventing allergies or asthma in a mammal comprising the pharmaceutical formulation of Claim 1 in an amount sufficient to regulate IgE.

13. (Original) A method of preventing or treating allergies or asthma in a mammal comprising administering a therapeutically effective dose of the pharmaceutical formulation of Claim 1 to said mammal.

14. (Original) The method of Claim 13, wherein said pharmaceutical formulation is administered by a route which results in systemic absorption of an immunogenic amount of said pharmaceutical formulation.

15. (Original) The method of Claim 13, wherein said pharmaceutical formulation is administered intradermally, intravenously, orally or rectally.

16. (Original) A method of immunizing a human against IgE-regulated allergic reactions by administering an effective dose of the pharmaceutical formulation of Claim 1 to said human.

17. (Original) The method of Claim 13, wherein said human is less than one year old.

18. (Original) The method of Claim 13, wherein said administering occurs within two weeks after birth.

19. (Original) A method of relieving the symptoms of allergy in a mammal comprising administering a therapeutically effective dose of the pharmaceutical formulation of Claim 1 to said mammal when experiencing said symptoms

20. (Original) A method of competitively inhibiting allergen-specific IgE in a mammal comprising administering a therapeutically effective dose of the pharmaceutical formulation of Claim 1 to said mammal.

21. (Original) The method of Claim 16, further comprising measuring total serum IgE levels and serum levels of IgE specific to allergens.

22. (Original) The method of Claim 21, wherein said measuring is performed by ELISA or enzyme-linked immunosorbent assay testing.

23. (Original) The method of Claim 16, wherein said therapeutically effective dose of the pharmaceutical formulation is determined by measuring said mammal's IgE levels and

administering a dose sufficient to provide a desired level, wherein said desired level is greater than about 1500 IU/ml.

24. (Original) The method of Claim 23, wherein said desired level is about 3000 IU/ml.